

# 台灣豬第二型環狀病毒與豬纖鍊病毒混合感染之探討

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## 摘要

豬第二型環狀病毒(Porcine circovirus type 2; PCV2)與豬纖鍊病毒(Torque teno sus virus; TTSuV)為國內重要新興病毒性疾病。其中 PCV2 可分為 PCV2a 以及 PCV2b 二種基因型，而 TTSuV 可分為 TTSuV1 與 TTSuV2 二種基因型。本研究由 2001 年至 2012 年共收集 811 個豬隻檢體，經研究分析後發現，PCV2a 之陽性率為 17.2% (140/811)，PCV2b 之陽性率為 70.6% (573/811)，PCV2a 與 PCV2b 混合感染之陽性率為 5.1% (41/811)。另一方面，TTSuV1 之陽性率為 9.4% (76/811)，TTSuV2 之陽性率為 7.5% (61/811)，TTSuV1 與 TTSuV2 混合感染之陽性率為 79.5% (645/811)。而 PCV2b、TTSuV1 與 TTSuV2 混合感染之陽性率為 56.5% (458/811)。本次研究結果顯示 PCV2 與 TTSuV 感染在台灣養豬場已十分普遍，而 PCV2b、TTSuV1 與 TTSuV2 混合感染亦呈現極高陽性率。

# **Dual-infection of porcine circovirus type 2 and torque teno sus virus in Taiwan**

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## **Abstract**

Porcine circovirus type 2 (PCV2) and torque teno sus virus (TTSuV) are the major emerging viral pathogens in Taiwanese pig farms. PCV2 is classified into two major genotypes: PCV2a and PCV2b. TTSuV can be divided into two distinct species, TTSuV1 and TTSuV2. In this study, 811 samples were collected from Taiwanese pig farms between 2001 and 2011. Among 811 samples, 140 (17.2%) samples were PCV2a positive, 573 (70.6%) samples were PCV2b positive, and 41 (5.1%) samples were positive for both PCV2a and PCV2b. The prevalence of TTSuV1, TTSuV2, and co-infection of TTSuV1 and TTSuV2 was 9.4%, 7.5%, and 79.5%, respectively. In addition, co-infection of PCV2b and TTSuV1/TTSuV2 is 56.5% (458/811). Our results suggest that PCV2 and TTSuV infections have become common in Taiwanese pig farms, respectively, and co-infection of PCV2b and TTSuV1/TTSuV2 also present high prevalence.